

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220



PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)
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Applicant's or agent's file reference see form PCT/ISA/220	<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. PCT/JP2004/004991	International filing date (day/month/year) 07.04.2004	Priority date (day/month/year) 22.04.2003
International Patent Classification (IPC) or both national classification and IPC H04Q7/30		
Applicant MATSHITA ELECTRIC INDUSTRIAL CO. LTD.		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material:  
 in written format  
 in computer readable form
  - c. time of filing/furnishing:  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. II Priority**

1.  The following document has not been furnished:

copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).  
 translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-28
	No: Claims	
Inventive step (IS)	Yes: Claims	1-27
	No: Claims	28
Industrial applicability (IA)	Yes: Claims	1-28
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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Reference is made to the following documents:

D1 = WO 02/30141 A1

D2 = EP 0 590 331 A2

A. **Citations and explanations made in respect of section V:**

(Observations regarding novelty, inventive step and industrial applicability)

1. **Claim 1** is directed to a wireless access system using Carrier Sense Multiple Access for Media Access Control. In this system, a host device is connected via a master station and a plurality of slave stations to terminals located in a wireless communication area. The connection between the master station and the slave stations is an optical fiber transmission line. In the system according to **claim 1**, when a slave station sends a signal in the upstream direction (i.e. to the master station), a notification is sent to all other slave stations.

Document **D1** discloses a wireless access system, wherein an IEEE 802.11 wireless LAN central unit (see D1: page 3, lines 3 to 6; page 3, lines 31 to 33; figure 1: "2") is connected via an optical broadband fiber (see D1: page 4, lines 32 to 35; figure 1: "9") to a plurality of antenna units (see D1: figure 1: "10") which provide coverage within a cell at a distance from the central unit (see D1: page 4, lines 32 to 35).

The following differences between the subject-matter of **claim 1** and the disclosure of document **D1** can be identified:

- [1] the system of **claim 1** uses Carrier Sense Multiple Access for Media Access Control
- [2] the system of **claim 1** is adapted to notify all other slave stations when one of the slave stations has output a signal in the upstream direction

Document **D2** discloses, in accordance with the above-mentioned feature [1], that the Carrier Sense Multiple Access protocol is commonly used in local area networks (see D2: column 1, line 14 to column 2, line 25).

However, the above-mentioned feature [2] is not disclosed in, or obviously derivable from document **D1** or document **D2**, alone or in combination. Sending

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such a notification prevents transmissions from more than one terminal to the host device at the same time.

As a consequence, the subject-matter of **claim 1** is new (see Article 33(2) PCT) and inventive (see Article 33(3) PCT). The subject-matter of **claim 1** is also industrially applicable (see Article 33(4) PCT).

2. The present application does not meet the requirements of Article 33(3) PCT, because the subject-matter of **claim 28** does not involve an inventive step.

Independent **claim 28** is directed to a wireless access method performed by a system using Carrier Sense Multiple Access (CSMA) for Media Access Control, wherein signals from one station, which can be the master station or a slave station, are sent to all other nodes.

Interconnecting stations of a local area network is common practise in the art, as is the use of the CSMA protocol. Reference is made, **for example**, to document **D2** (see D2: column 1, line 14 to column 2, line 25; column 11, line 14 to column 12, line 5; figures 1 and 6).

Without the use of inventive skill, and in accordance with circumstances, the skilled person in the field of local area networks would interconnect the stations of a wireless access system such as disclosed in document **D1** (see also paragraph 1 above), for instance by means of a star coupler (see D2: column 1, line 47 to column 2, line 25; column 11, line 14 to column 12, line 5; figures 1 and 6), and use this system to communicate with terminals, thus arriving at the subject-matter of **claim 28**.

As a consequence, **claim 28** does not involve an inventive step, see Article 33(3) PCT.

3. The dependent **claims 2 to 27** are advantageous embodiments of the wireless access system of **claim 1** and said claims therefore also meet the requirements of Articles 33(2), (3) and (4) PCT with respect to novelty, inventive step and industrial applicability.

**B. Further remarks made in respect of the present application:**

1. The applicant should take care that the amended claims meet the requirements of Rule 13.1 PCT regarding **unity** of the invention. It is suggested to reformulate independent **claim 28** as a method claim corresponding to **claim 1**, using features that closely correspond to those of **claim 1**.
2. In order to meet the requirements of Rule 5.1 (a) (ii) PCT, the documents **D1** and **D2**, which represent a relevant state of the art with regard to the present application, should be identified in the opening part of the description and the relevant background art disclosed therein should be briefly discussed.
3. The opening part of the description should be brought into **conformity** with the wording of any new or amended independent claim(s), see Rule 5.1 (a)(iii) PCT.
4. In order to meet the requirements of Rule 6.3(b) PCT, any independent claim should be correctly cast in the **two-part form**, with those features which in combination are part of the nearest prior art (e.g. document **D1**) being placed in the preamble.
5. The attention of the applicant is drawn to the fact that the application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed, see Article 43 (2)(b) PCT.

**In his letter of reply, the applicant should indicate the parts of the originally filed application serving as a basis for subject-matter newly introduced into the claims.**

6. The applicant is requested to file amendments by way of **replacement pages** in accordance with Rule 66.8 PCT.